Appl. No.

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: October 10, 2000

## AMENDMENTS TO THE CLAIMS

1. (Previously presented) A recombinant polynucleotide encoding a polypeptide comprising the amino acid sequence (SEQ ID NO: 1):

NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETCFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWCGTTQNY DADQKFGFCP MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY

or variants or fragments or derivatives or fusions thereof or fusions of said variants or fragments or derivatives.

- 2. (Previously presented) A polynucleotide according to Claim 1, encoding a polypeptide comprising the amino acid sequence shown in Figure 2 labeled pMSF1α between positions 19 and 660 (SEQ ID NO: 36), or variants or fragments or derivatives or fusions thereof or fusions of said variants or fragments or derivatives.
- 3. (Previously presented) A polynucleotide according to Claim 1, which contains no introns.
- 4. (Previously presented) A polynucleotide according to Claim 1, comprising the polynucleotide whose sequence is shown in Figure 1 (SEQ ID NO: 2).
- 5. (Previously presented) A polynucleotide according to Claim 1, comprising the polynucleotide whose sequence is shown in Figure 1 between positions 57 and 1982 (SEQ ID NO: 41).
- 6. (Previously presented) A polynucleotide according to Claim 1, encoding a polypeptide which has migration stimulation factor activity.
- 7. (Previously presented) A replicable vector comprising a polynucleotide as defined in Claim 1.
- 8. (Previously presented) A host cell comprising a recombinant polynucleotide as defined in Claim 1 or a replicable vector comprising the polynucleotide.

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9. (Previously presented) A method of making a polypeptide having the amino acid sequence (SEQ ID NO: 1)

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NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETCFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGATWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY
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or variants or fragments or fusions or derivatives thereof, or fusions of said variants or fragments or derivatives, the method comprising culturing a host cell as defined in Claim 8 which expresses said variant or fragment or derivative or fusion and isolating said polypeptide or variant or fragment or derivative or fusion from said host cell culture.

10. (Previously presented) A polypeptide comprising the amino acids sequence (SEQ ID NO: 1)

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NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AWWMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETCFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVWTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWCGTTQNY DADQKFGFCP MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY
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or variants or fragments or fusions or derivatives thereof or fusions of said variants or fragments or derivatives.

- 11. (Previously presented) A polypeptide according to Claim 10, comprising the amino acid sequence shown in Figure 2 labeled pMSF1α between positions 19 and 660 (SEQ ID NO: 36), or variants or fragments or fusions thereof or fusions of said variants or fragments.
  - 12. (Original) A polypeptide obtainable by the method of Claim 9.
- 13. (Previously presented) A polypeptide according to Claim 10, which has migration stimulating factor activity.

Claims 14-26 (Cancelled)

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27. (Currently amended) A molecule which is capable of, following immunization of an animal if appropriate, giving rise to antibodies which are reactive towards the polypeptide whose sequence is (SEQ ID NO: 1)

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NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETCFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PELYNNHNYT DCTSEGRRDN MKWCGTTQNY DADQKFGFCP MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDWWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY
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or natural variants thereof and but not reactive towards fibronectin (SEC ID NO: 46 44).

- 28. (Cancelled)
- 29. (Previously presented) A molecule according to Claim 27 which is a peptide comprising any one of the sequences ISKYILRWRPVSIPPRNLGY (SEQ ID NO: 3) or QQWERTYLGNALVCTCYGGSR (SEQ ID NO: 4) or PCVLPFTYNDRTDSTTSNYEQDQ (SEQ ID NO: 5) or TDHTVLVQTRGGNSNGALCH (SEQ ID NO: 35) or VGNGRGEWTCIAYSOLRDOCI (SEO ID NO: 7) which are found in MSF.

Claims 30-35 (Cancelled)

36. (Withdrawn and currently amended) A method of diagnosing cancer, in a person the method comprising detecting in a sample from the person to be diagnosed the presence of a polypeptide according to Claim 10 whose sequence is (SEQ ID NO: 1)

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NLVATCLPVR-ASLPHRLNML-RGPGPGLLLL-AVLCLGTAVP STGASKSKRQ-AQQMVQPQSP VAVSQSKPGC-YDNGKHYQIN-QQWERTYLGN-VLVCTCYGGS-RGFNCESKPE-AEETCFDKYT GNTYRVGDTY-ERPKDSMIWD-CTCIGAGRGR-ISCTIANRCH-EGGQSYKIGD-TWRRPHETGG YMLECVCLGN-GKGEWTCKPI-AEKCFDHAAG-TSYVVGETWE-KPYQGWMMVD-CTCLGEGSGR ITCTSRNRCN-DQDTRTSYRI-GDTWSKKDNR-GNLLQCICTG-NGRGEWKCER-HTSVQTTSSG SGPFTDVRAA-VYQPQPHPQP-PPYGHCVTDS-GVVYSVGMQW-LKTQGNKQML-CTCLGNGVSC QETAVTQTYG-GNSNGEPCVL-PFTYNGRTFY-SCTTEGRQDG-HLWCSTTSNY-EQDQKYSFCT DHTVLVQTQG-GNSNGALCHF-PFLYNNHNYT-DCTSEGRRDN-MKWCGTTQNY-DADQKFGFCP MAAHEEICTT-NEGVMYRIGD-QWDKQHDMGH-MMRCTCVGNG-RGEWTCYAYS-QLRDQCIVDD ITYNVNDTFH-KRHEEGHMLN-CTGFGQGRGR-WKCDPVDQCQ-DSETGTFYQI-GDSWEKYVHG-VRYQCYCYGR-GIGEWHCQPL-QTYPSSSGPV-EVFITETPSQ-PNSHPIQWNA-PQPSHISKYI-LWRRPVSIPP-RNLGY
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or a natural variant thereof using a reagent which that can distinguish said polypeptide from fibronectin (SEQ ID NO: 46 44).

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37. (Withdrawn and currently amended) A method of determining susceptibility to cancer the method comprising detecting in a sample derived from the person to be tested the presence of a polypeptide according to Claim 10 whose sequence is (SEQ ID NO: 1)

NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETGFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWGSTTSNY EQDQKYSFCT DHTVLVQTQC GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWCGTTQNY DATQKFGFCP MAAHEEIGTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYILRWRPVSIPP RNLGY

or a natural variant or fragment thereof using a reagent which that can distinguish said polypeptide from fibronectin (SEQ ID NO: 46 44).

38. (Withdrawn and currently amended) A method of determining the likely outcome of a patient with cancer the method comprising detecting in a sample from the patient the presence of polypeptide according to Claim 10 whose sequence is (SEQ ID NO: 1)

NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETCFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWGSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWGGTTQNY DADQKFGFCP MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY

or a natural variant or fragment thereof using a reagent which that can distinguish said polypeptide from fibronectin (SEQ ID NO: 46 44).

- 39. (Withdrawn and currently amended) A method according to any one of Claims 36 to 38, wherein the reagent which can distinguish said polypeptide from fibronectin is an antibody according to any one of Claims 14-17.
- 40. (Withdrawn and currently amended) A method of diagnosing cancer the method comprising detecting in a sample from the person to be diagnosed a polynucleotide encoding a polypeptide according to Claim 10 whose sequence is (SEQ ID NO: 1)

NLVATCLPVR ASLPHRLNML RCPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETGFDKYT

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GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG
YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR
ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG
SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC
QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT
DHTVLVQTQG GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWCGTTQNY DADQKFGFCP
MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD
ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG
VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI
LRWRPVSIPP RNLGY

or a natural variant thereof using a reagent which that can distinguish said polynucleotide from a polynucleotide encoding fibronectin (SEQ ID NO: 46 44).

41. (Withdrawn and currently amended) A method of determining susceptibility to cancer the method comprising detecting in a sample derived from the person to be tested the presence of a polynucleotide according to Claim 10 encoding a polypeptide whose sequence is (SEQ ID NO: 1)

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NLVATCLPVR ASLPHRINML RGPGPGLILL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE ABETGFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE PKYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SGPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPCVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWCGTTQNY DADQKFGFCP MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTCVGNG RGEWTCYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYCYGR GIGEWHCQPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY
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or a natural variant thereof using a reagent which that can distinguish said polynucleotide from a polynucleotide encoding fibronectin (SEQ ID NO: 46 44).

42. (Withdrawn and currently amended) A method of determining the likely outcome of a patient with cancer the method comprising detecting in a sample from a patient the presence of a polynucleotide encoding a polypeptide according to Claim 10 whose sequence is (SEQ ID NO: 1)

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NLVATCLPVR ASLPHRLNML RGPGPGLLLL AVLCLGTAVP STGASKSKRQ AQQMVQPQSP VAVSQSKPGC YDNGKHYQIN QQWERTYLGN VLVCTCYGGS RGFNCESKPE AEETCFDKYT GNTYRVGDTY ERPKDSMIWD CTCIGAGRGR ISCTIANRCH EGGQSYKIGD TWRRPHETGG YMLECVCLGN GKGEWTCKPI AEKCFDHAAG TSYVVGETWE KPYQGWMMVD CTCLGEGSGR ITCTSRNRCN DQDTRTSYRI GDTWSKKDNR GNLLQCICTG NGRGEWKCER HTSVQTTSSG SCPFTDVRAA VYQPQPHPQP PPYGHCVTDS GVVYSVGMQW LKTQGNKQML CTCLGNGVSC QETAVTQTYG GNSNGEPGVL PFTYNGRTFY SCTTEGRQDG HLWCSTTSNY EQDQKYSFCT DHTVLVQTQG GNSNGALCHF PFLYNNHNYT DCTSEGRRDN MKWCGTTQNY DADQKFGFCP MAAHEEICTT NEGVMYRIGD QWDKQHDMGH MMRCTGVGNG RGEWTGYAYS QLRDQCIVDD ITYNVNDTFH KRHEEGHMLN CTCFGQGRGR WKCDPVDQCQ DSETGTFYQI GDSWEKYVHG VRYQCYGYGR GIGEWHSCPL QTYPSSSGPV EVFITETPSQ PNSHPIQWNA PQPSHISKYI LRWRPVSIPP RNLGY
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or a natural variant or fragment thereof using a reagent which that said polynucleotide from a polynucleotide encoding fibronectin (SEQ ID NO: 46 44).

- 43. (Cancelled)
- 44. (Withdrawn) A method according to any one of Claims 36 to 38 and 40 to 42, wherein the cancer is breast cancer.
  - 45. (Cancelled)
  - 46. (Cancelled)
- 47. (Withdrawn) A method of modulating cell migration the method comprising administering an effective amount of a polypeptide according to any one of Claims 10 and 12 to the site where modulation of cell migration is required.
- 48. (Withdrawn) A method according to Claim 47, wherein the cell is a fibroblast or an endothelial cell.
- 49. (Withdrawn) A method according to Claim 47, wherein the site is in a mammalian body.
- 50. (Withdrawn) A method according to Claim 49, wherein the site is in a human body.
- 51. (Currently amended) A method for modulating cell migration at a site within a mammalian body comprising administering Use of a polypeptide according to any one of Claims 10 and 12 to the site. , in the manufacture of an agent for modulating cell migration.
  - 52. (Cancelled)
- 53. (Withdrawn) A method of healing a wound the method comprising administering to the locality of the wound an effective amount of a polypeptide according to any one of Claims 10 and 12.
  - 54. (Cancelled)
  - 55. (Cancelled)
- 56. (Previously presented) A pharmaceutical composition comprising a polypeptide according to any one of Claims 10 and 12 and a pharmaceutically acceptable carrier.
- 57. (Previously presented) A polypeptide according to any one of Claims 10 and 12 for use in medicine.

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58. (Withdrawn) A method of preventing scarring comprising administering to the locality of the site where scarring is to be prevented an effective amount of polypeptide according to any one of Claims 10 and 12.

59. (Previously presented) A polypeptide according to Claim 12, which has migration stimulating factor activity.

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## AMENDMENTS TO THE DRAWINGS

Enclosed please find a clean copy of amended Figures 1 and 2 along with a copy showing red ink markings designating the proposed changes to the drawings in this application for which approval by the Examiner is requested. Figures 1 and 2 have been amended to add sequence identifiers. Accordingly, no new matter is being added herewith.